

Chapter 8:

Performing Nutrient Analysis; Evaluating and Modifying Menus to Achieve the Nutrient Standard

Steps to Perform a Nutrient Analysis

You will need to follow the software's directions to perform a nutrient analysis of a week's menus. Begin by selecting:

Site/Central Menu

Specify the site or central menu to be analyzed.

Date Range

The date range is the range of dates from the first day of the menu analysis week through the last day of the menu analysis week. For example:

- 9/9/96 - 9/13/96
- 9/16/96 - 9/20/96

Meal Type

Specify the meal type, breakfast or lunch.

Regulations permit SFAs using nutrient-based menu planning to combine the breakfast and lunch analyses (See Lesson 4, pp. 45-46, for more information on combined analyses). Some computer software has been updated to perform a combined breakfast/lunch analysis, while others have not. If the computer software has not been updated to perform this analysis, see the *Healthy School Meals Training* manual beginning on page 9-16 for forms and directions for performing a manual analysis.

State agencies performing menu review are encouraged to perform separate breakfast and lunch analyses. When separate analyses are performed, it is easier to identify problems and better focus technical assistance.

Perform the Analysis

Following your software's procedures, perform the nutrient analysis.

Evaluating and Modifying Menus to Achieve the Nutrient Standard

If you find that your weekly menu analysis does not meet the nutritional goals, look at the frequency, portion size, balance of foods and/or nutrient food source list to modify the menu.

1) Evaluate the nutrient analysis of the menus

Evaluate how well the current menu meets the appropriate Nutrient Standard. This will help to determine what, if any, changes must be made to meet the Nutrient Standard.

- How do the menus compare to the Nutrient Standards? What areas need changes? Which areas are okay?
- Do the menus have sufficient calories? Remember the importance of adequate, consistent calorie levels, which are close to the appropriate Nutrient Standard.
- Are the menus too high in fat or saturated fat?
- Are the menus low in calcium, iron, vitamin A, or vitamin C?

2) Review the menus for variety by looking at the frequency with which menu items are offered

The **frequency** with which a particular food or type of food is offered will affect the nutrient content of the menu.

- Are a variety of meats, fruits, vegetables, and grain products offered? Are some whole grains offered?
- Should the total number of low fat or low unsaturated fat food or menu items be increased?
- Are too many high sodium items offered?

- Are more high vitamin A or high vitamin C foods needed?
- Can a popular high fat item be served fewer times in a cycle or week?

3) Review the Portion Sizes

After making adjustments to how often foods are served, recheck the nutrient analysis. If there are still discrepancies, look at the **portion size** of problem foods next.

- Can a smaller serving be offered of popular foods that may be contributing too much fat, saturated fat or sodium?
- Can the quantity of a high fat ingredient in a recipe be reduced?
- Can a high fat ingredient in a recipe be changed to a lower fat ingredient?
- Can the portion size of a menu item be increased to provide the nutrients needed to meet the Nutrient Standard?

4) Check for "Balance"

Next, look at the **balance** of foods within each day and the week.

- Are the colors in the menu pleasing to the eye?
- Are the food flavor combinations pleasing to the taste?
- Does the menu have pleasing contrasts in shapes and sizes, textures, and temperatures?
- Are there too many foods high in fat or saturated fat in the same day or the same week?
- Can a high fat entree be balanced with low fat side dishes or other low fat entrees during the week?

Nutrient Food Source List

If you still have not met the Nutrient Standards, you can use the ***Nutrient Food Source List*** in the software program to find ideas for menu modification.

- These lists will suggest foods that might be added or substituted in menus in order to increase the amount of a nutrient found to be below the nutrient standard in the week's breakfast or lunch.

For example, you may ask the computer to provide you a list of foods which contain less than 3 grams of fat which also contain at least two milligrams of iron.

When replacing a food, be sure that the levels of the other nutrients in the menu are maintained. After deciding which foods to change and/or which foods to add to the menu, nutrient values need to be recalculated and compared to the Nutrient Standard.

Print Menu Plan Reports

When the nutrient analysis is complete, print out the appropriate reports. Some reports available are:

- Nutrient composition of CN Database and locally entered food items
- Nutritional analysis of recipes and menus
- Menus: available in both calendar and report formats
- Menu Production Records

Reanalysis of Menus for Leftovers and Substitutions for NSMP and ANSMP

Substitutions

Occasionally it is necessary to make a substitution to a planned menu cycle due to various reasons such as effective use of leftovers, food shortage or improper delivery from vendors. This is a concern because:

- Substitutions may change the nutrient content.
- Meals may no longer meet the Nutrient Standard.

When food substitutions are made due to an emergency situation (i.e., food shortage), it is impractical for menu planners to revise menus and recalculate nutrient amounts, especially if the emergency arises at the end of the week.

Two-Week Window

If the need for service of a substitute item or leftovers occurs prior to a two-week “window” before the day the original menu item is to be served, the week’s menus must be reanalyzed to determine if the Nutrient Standards will be met with the substituted item or if other changes will be needed to meet the Nutrient Standards.

Definition

The two-week “window” is the two-week period before the day of the menu item substitution.

For example:

Creamed corn is planned for the menu to be served on Wednesday, November 19. The two week window for this menu will begin on Wednesday, November 5 and go through the day before the meal is served, i.e., Tuesday, November 18.

Protocols

1. If the need for a substitution is known more than two weeks before the menu date, or **outside the two-week window**:

- Reanalyze
- Meet the Nutrient Standard

2. If the need for a substitution occurs **within the two-week window**:

- No reanalysis is required
- Substitute with a similar food
- If a food is substituted that is not a similar food according to the definition in this section, a reanalysis should be done

Similar Foods

For the purposes of NSMP, a similar food will mean that the substitution:

- Plays the same role in the meal, for example:
 - Entree
 - Other menu items (side dishes)

and

- Is from the same food group (breads, fruits, vegetables, etc. - If possible, substitute a like food within a food group, i.e., a citrus fruit for a citrus fruit, a leafy green vegetable for a leafy green vegetable, etc.)

Menu planners are encouraged to monitor the substitutions and reanalyze the menu, if in their judgment, the Nutrient Standards would no longer be met. If the standards are not being met, additional training with staff should be done to reduce substitutions and leftovers.

Leftovers

Effective use of leftovers is encouraged in NSMP:

Leftovers may be frozen and used when the menu item is on the menu again, or they may be used as a substitute at a later date. The same two-week window rules apply to leftovers as apply to substitutions.

Schools are cautioned that any leftover not frozen for reuse should be used within a safe period. Bacteria continue to grow even under refrigeration.

Theme Bar Substitutions

When substitutions occur on a theme bar, the same rules apply as for a regular lunch, that is, the two-week window applies to substitutions of food items on a theme bar. If knowledge of the need for a substitution occurs prior to two-weeks before the service of the menu, the recipe should be modified to reflect the substituted ingredient and the modified recipe used in the menu analysis. If the need for a substitution occurs within the two-week window prior to the meal service, no reanalysis is required, but the substituted item should be similar to the planned item.

Documentation

Documentation of substitutions and leftover usage, and the date the need for a substitution or leftover usage was known, should be maintained by making notes on the menu production record or by other means.

Adjusting Future Menus

The menus have now been planned and analyzed. Before the menu is used again, SFAs using NSMP and ANSMP may need to reanalyze/readjust the menus for weighted analysis if there are significant changes in participation or projected production. The actual participation and the actual number of menu items served (recorded on the production record) should be compared to the numbers planned. If the differences are such that production numbers need to be adjusted, then the menu should be reanalyzed using the new numbers.

Getting Help

Any questions that may arise about food items, recipe analysis, and/or menu analysis that have not been addressed in this manual should be communicated to your State agency.